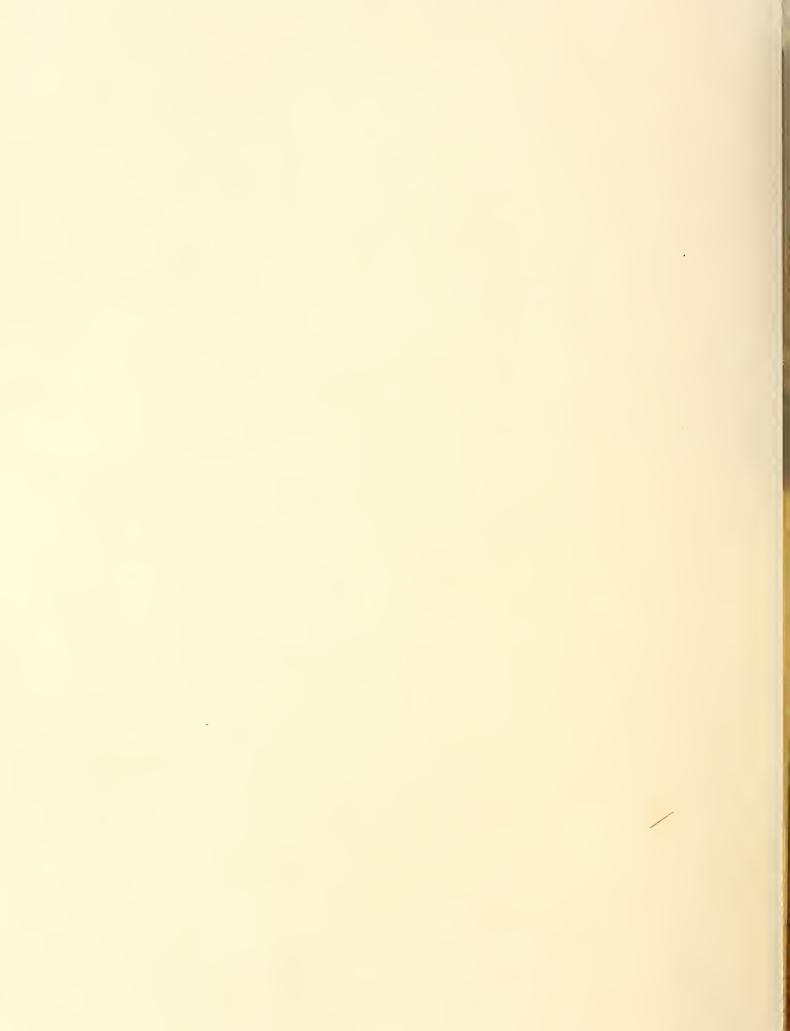
Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.





CURRENT SERIAL RECORDS

WATER SUPPLY OUTLOOK

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS for UTAH

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE, and
STATE ENGINEER of UTAH

In cooperation with U.S. Forest Service, Bureau of Reclamation, Utah Fish and Game Dept., Utah Agricultural Experiment Station, U.S. National Park Service, U.S. Geological Survey; and other Federal, State, and private organizations.

MAR. 1, 1964

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Water Supply Outlook Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from advance estimates of the streamflow.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, up to 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

Streamflow forecasts are obtained by a comparison of total or maximum snow accumulation, as measured by snow water equivalent, to the subsequent spring and summer or snowmelt season runoff over a period of years. The snow water equivalent measured in selected snow courses provides most of the index to the streamflow forecast for the following season. More accurate forecasts are usually obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast procedure. Early season forecasts assume average climatic conditions through the snowmelt season.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions. Soil Conservation Service Reports may be secured from Water Supply Forecasting Unit, Soil Conservation Service, P.O. Box 2807, Portland, Oregon 97208.

PUBLISHED BY SOIL CONSERVATION SERVICE

REPORTS	ISSUED	LOCATION	COOPERATING WITH
RIVER BASINS			
WESTERN UNITED STATES	_ MONTHLY (FEBMAY) Po	RTLAND, OREGON	ALL COOPERATORS
BASIC DATA SUMMARY	OCTOBER 1 PO	RTLAND, OREGON	ALL COOPERATORS
STATES			
ALASKA	MONTHLY (MAR MAY)P	ALMER. ALASKA	. ALASKA S.C.D.
AR I ZON A	SEMI-MONTHLY P (JAN.15 - APR.1)		SALT R. VALLEY WATER USERS ASSDC. ARIZ. AGR. EXP. STATION
COLDRADO AND NEW MEXICD	MONTHLY (FEBMAY) F	ORT COLLINS, CDLDRADD.	- COLO. STATE UNIVERSITY COLD. STATE ENGINEER N. MEX. STATE ENGINEER
I D A H D	MONTHLY (JANJUNE) B	OISE, IDAHD	IDAHD STATE RECLAMATION ENGINEER
MDNTANA	MONTHLY (JANJUNE) B	OZEMAN, MDNTANA	MONT. AGR. EXP. STATION
NEVADA	R (YAMNAL) PLITNOM	END, NEVADA	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES
ORE GDN	MDNTHLY (JANJUNE) P	DRTLAND, OREGON	OREG. STATE UNIVERSITY OREGON STATE ENGINEER
UTAH	MONTHLY (JANJUNE) S	ALT LAKE CITY, UTAH	. UTAH STATE ENGINEER
WASHINGTON-	MONTHLY (FEBJUNE)_ S	PDKANE. WASHINGTON	. Wn. STATE DEPT. OF CONSERVATION
WYOMING	MONTHLY (FEBJUNE) C	ASPER. WYDMING	. WYOMING STATE ENGINEER
	PUBLISHED BY O	THER ACENCIES	
REPORTS	ISSUED	THER AGENCIES	AGENCY
		WATER RESERVE	
BRITISH COLUMBIA	MONTHLY (FEBJUNE)	FOREST AND WATER VICTORIA, B.C.,	S SERVICE, DEPT. OF LANDS, RESDURCES, PARLIAMENT BLDG., CANADA
CALIFORNIA	MONTHLY (FEBMAY)	CALIF. DEPT. OF \ SACRAMENTD, CALI	VATER RESDURCES, P.O. BOX 388,

WATER SUPPLY OUTLOOK

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

for

UTAH

MARCH 1, 1964

Report prepared by

GREGORY L. PEARSON, Snow Survey Supervisor and

GARRY DINSDALE, Asst. Snow Survey Supervisor

SOIL CONSERVATION SERVICE SNOW SURVEY SECTION 125 SOUTH STATE SALT LAKE CITY UTAH 84111

Issued by

WAYNE D. CRIDDLE

STATE ENGINEER

STATE OF UTAH

SALT LAKE CITY, UTAH

J.A. LIBBY

STATE CONSERVATIONIST

SOIL CONSERVATION SERVICE

SALT LAKE CITY, UTAH

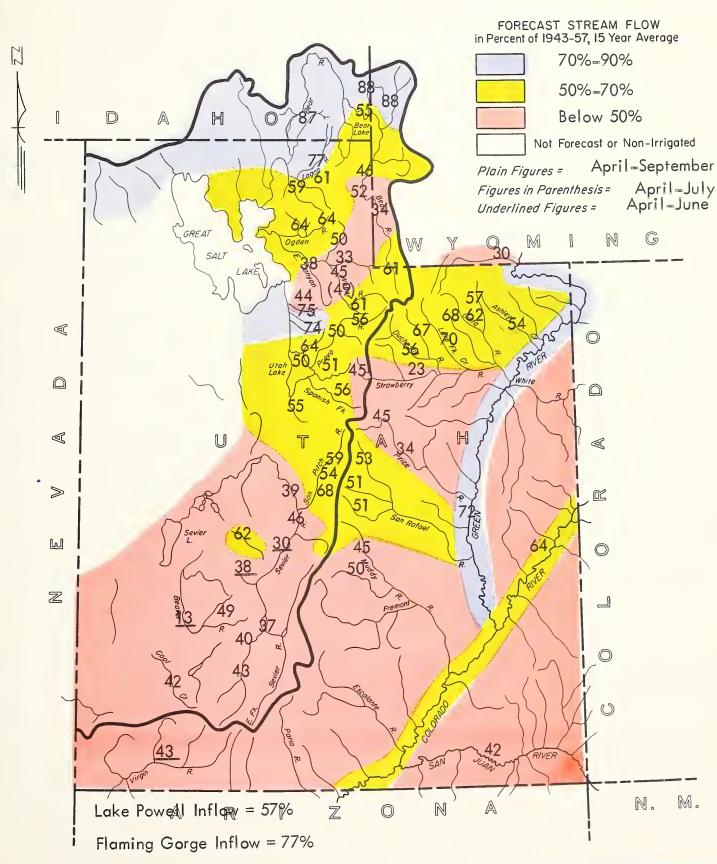
DR. D.W. THORNE
DIRECTOR
UTAH AGRICULTURAL
EXPERIMENT STATION
LOGAN, UTAH



PROSPECTIVE WATER SUPPLIES

Based on Snow Surveys Made on UTAH and BEAR RIVER WATERSHEDS







WATER SUPPLY OUTLOOK

as of

MARCH 4, 1964

Extremely light snowpack accumulation during February on nearly all watersheds of the state has resulted in marked lowering of forecasts for next summer's streamflow. Now, forecasts for most streams range between one third and two thirds of their usual flow.

An exception to the general water picture exists on the Cottonwood Creeks near Salt Lake, the streams near Tooele and on the Logan river. Here the outlook is better, with streams expected to yield about 70% to 80% of average.

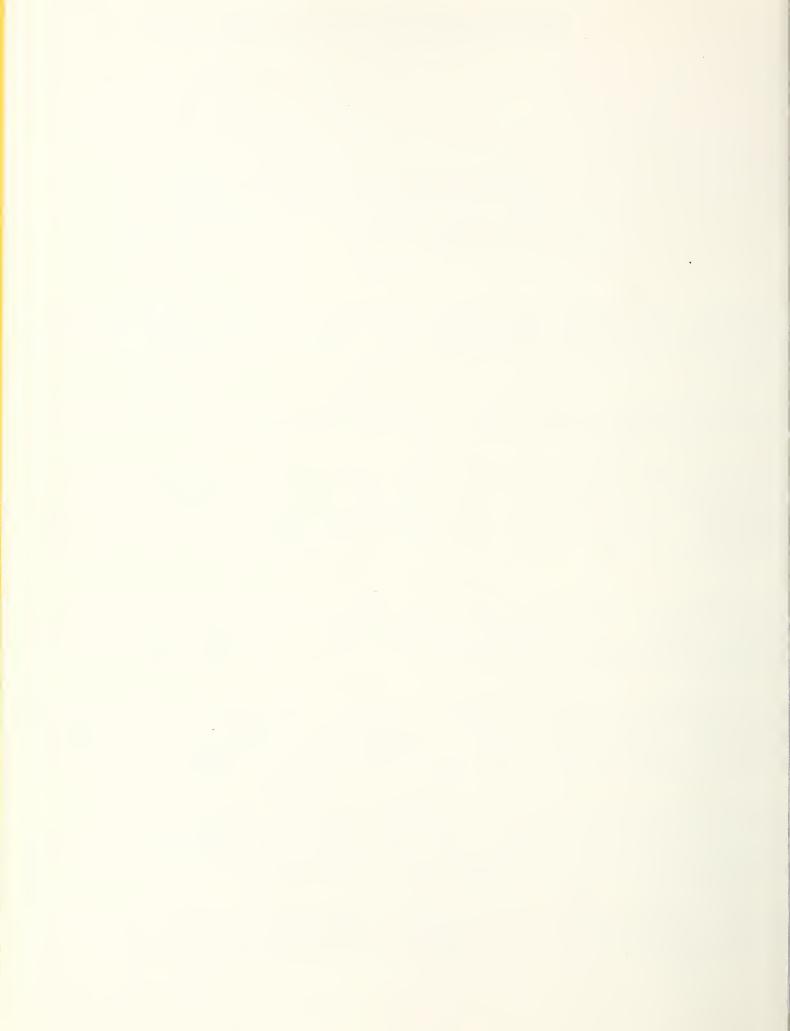
February snowfall generally varied between 10% and 35% on the watersheds of the Uintah Basin and southern Utah. On northern and central watersheds, snowfall was about 25% to 50%. Notable exceptions occurred in the Sheep Creek-Lost Creek area southeast of Salina where the month's snowfall was 113% to 122%. Near Tooele, on Mt. Nebo and on Chalk Creek east of Coalville it ranged from 75% to 90% for the month.

The outlook for the summer's streamflow is particularly poor for southern Utah, where streams are expected to yield essentially the same as they did during last year's drought. On southern and eastern watersheds, eight snow courses have set new record low readings, while many courses have only one or two years when slightly lower March 1st readings have been made.

Several examples of these low readings follow. At the Buckboard Flat snow course near Monticello only 3.4 inches snow water was measured. The previous low was 5.4 inches measured in 1963, and compares with the average of 13.3 inches. At Camp Jackson near Blanding, this year's reading of 1.9 inches snow water compares with the previous low of 3.4 inches measured in 1961 and with the average of 12.0 inches.

The reading at Cedar Breaks, near the head of the Virgin and Sevier rivers, is typical of snowpack conditions in southwestern areas. Here the reading this month was 5.8 inches snow water. Last year's reading (1963) was lowest of record, with 5.0 inches. The second lowest previous reading was 10.4 inches measured in 1959. Average for March 1 is 19.2 inches.

Forecasts range between about 30% and 50% for the following streams - the Sevier, Virgin, Beaver, Paria, Escalante, Fremont and Muddy rivers in southwestern Utah; streams in the Moab, Monticello, Blanding area, the Price river, Strawberry



WATER SUPPLY OUTLOOK (continued)

reservoir inflow, East Canyon Creek near Morgan, Lost Creek near Croydon, Chalk Creek and the Weber river at Coalville, the Bear river and smaller tributaries near Woodruff and Randolph.

Inflow to Rockyford reservoir on the Beaver river near Minersville is forecast at 13%, while the Strawberry river at Duchesne is expected to yield 23%. Streams in East Carbon county and on the south side of the Uintah Basin should yield between 10% and 35% of average.

Although inflow to Utah Lake is expected to be only 50%, when combined with present storage (see reservoir storage table, page 6), the total water available should be nearly adequate for most uses unless dry spring and summer weather is experienced. The same statement applies for water users served by the Strawberry reservoir where an inflow of 45% is expected. By the end of the summer both of these reservoirs are expected to be drawn down about as far as possible.

Streams which are expected to produce between 50% and 70% of average include the following - Chalk Creek near Fillmore, San Pitch and San Rafael river tributaries, all streams flowing into Utah Lake, all northern streams of the Uintah Basin, the upper Weber and Bear rivers, the Ogden river, Little Bear and Blacksmith Fork in Cache Valley.

As reported by the U.S. Geological Survey, low reservoir storage values fail to brighten the water outlook for southern areas. In northern areas, however, above normal storage water assures fairly adequate supplies for those having a right to the water. In these northern areas, those who have only a natural flow right can expect mild to serious shortages of late season water.

In reviewing the above forecasts it should be remembered that they are made with the assumption that average weather conditions will prevail during the spring and summer months. If the dry weather experienced thus far this winter should continue, actual streamflow will be considerably below what is now expected. Before average streamflow could occur, mountain snowfall would have to be from about 150% to 300% of normal for the next two or three months.



THIS YEAR PERIOD YEAR OF AVERAGE	FORECAST POINT	ORECAST THIS YEAR	FORECAST PERIOD	LAST YEAR	AVERAGE b	
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GREAT BASIN

BEAR RIVER SYSTEM					
Bear nr Ut-Wyo. State Line Bear near Woodruff Woodruff Crk nr Woodruff, Utah Big Crk nr Randolph, Utah Bear near Randolph Smith's Fork nr Border, Wyo. Bear at Harer, Idaho Little Bear nr Paradise Logan nr Logan (1) Blacksmith Fork nr Hyrum (2)	75 45 10 4.5 10 105 165 27 110 41	Apr-Sept	 103	123 133 19.4* 9.7* 115 119 299 46 143 67	61 34 52 46 9 88 55 59 77 61
WEBER-OGDEN RIVERS					
Weber nr Oakley Wanship Reservoir Inflow (3) Weber nr Coalville (4) Chalk Crk at Coalville Lost Crk nr Croydon, Utah East Canyon Crk nr Morgan (5) So. Fork Ogden nr Huntsville Pineview Reservoir Inflow (6)	62 82 64 65 14 10 11 45 91	Apr-June Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-July	82 102 19.4 10.7 11.8 93	107 134 130* 143 42 19.9 28.7 70 142	58 61 49 45 33 50 38 64 64
Strawberry Reservoir Inflow (7) Spanish Fork at Thistle Payson Creek nr Payson Hobble Crk nr Springville Provo nr Hailstone (8) Provo at Vivian Park (9) American Fork nr American Fork Utah Lake Inflow	25 24 4.4 12 65 80 23 160	Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-Sept	 12.0 25 207	56 43 8.0* 23.7* 116 * 159 36 317	45 56 55 51 56 50 64 50
JORDAN RIVER & SALT LAKE					
Little Cottonwood Crk nr SLC Big Cottonwood nr SLC Parley's Crk nr SLC	29 30 6.5	Apr-Sept Apr-Sept Apr-Sept	36 33 7.1	39 40 14.7	74 75 44

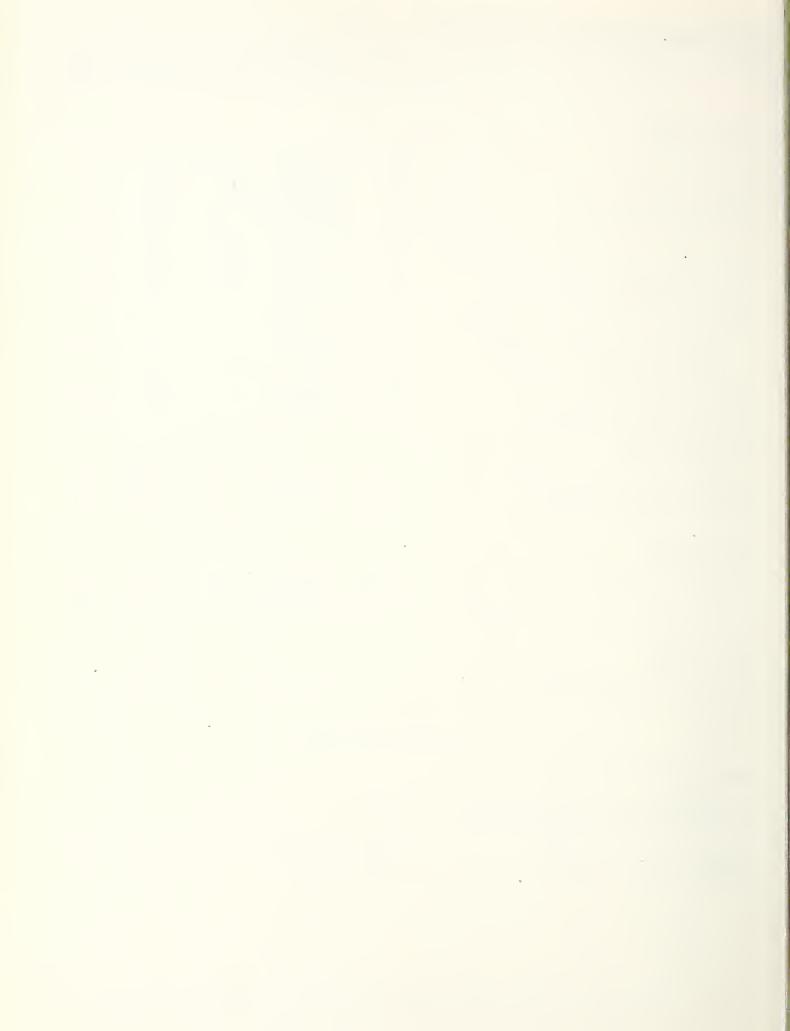
⁽¹⁾ Includes U.P.& L. Co. tailrace and Logan, Hyde Park & Smithfield Canal. (2) Above Utah Power & Light Company's dam. (3) Observed flow Weber River near Wanship, Utah, plus change in storage in Wanship Reservoir, plus diversion by Weber-Provo Canal. (4) Includes diversion by Weber-Provo Canal and change in storage in Wanship Reservoir. (5) Observed flow plus change in storage in East Canyon Reservoir. (6) Inflow record as computed by U.S. Bureau of Reclamation. (7) Change in storage plus diversion thru Strawberry tunnel. (8) Observed flow minus diversions thru Duchesne tunnel and Weber-Provo Canal. (9) Observed flow plus change in Storage in Deer Creek reservoir, minus diversions thru Duchesne tunnel & Weber-Provo Canal plus diversion thru Salt Lake Accordant & Weber-Provo Canal, plus diversion thru Salt Lake Aqueduct.



UTAH STREAMFLOW FORECASTS a (1,000 Ac. Ft.)

FORECAST POINT	FORECAST	FORECAST	LAST	h .	THIS YEAR
TOTE DAG TOTAL	THIS YEAR	PERIOD	YEAR	AVERAGE 6	PERCENT AVERAGE
SEVIER RIVER					
Sevier at Hatch	13 21	Apr-June Apr-Sept	16.2 25.0	35 49	37 43
Sevier nr Circleville	17	Apr-Sept		43*	40
Sevier nr Kingston	3 5	Apr-June Apr-Sept	2.7 4.8	24.6	12 17
East Fork Sevier nr Kingston (10)	3 5 3.5 8	Apr-June Apr-Sept	5.5	29.7 17.2 21.6	20 37
Sevier below Piute Dam (11)	14	Apr-Sept	14.9	51	27
Clear Crk nr Sevier (abv. Div.) Inflow	6	Apr-June	CEPTO GAME	15.9*	38
Kingston to Vermillion Dam	14	Apr-June	ano	47	30
Vermillion Dam to Gunnison	29	Mar-June		63	46
Salina Crk at Salina (12) Sevier nr Gunnison a	1 25	Apr-June Apr-Sept	 24.3	9.4* 64	11 30
Chalk Creek nr Fillmore	12.5	Apr-Sept		20.3	3 9 62
SAN PITCH RIVER					
Pleasant Crk nr Mt. Pleasant Twin Crk nr Mt. Pleasant Ephraim Creek nr Ephraim	6 2.7 10.7	Apr-Sept Apr-Sept Apr-Sept	· ·	10.2* 5.0* 15.7	59 54 68
BEAVER RIVER					
Beaver nr Beaver	11.5 14.5	Apr-June Apr-Sept	10.6 14.4	22.3 29.4	52 49
Rockyford Reservoir Inflow (13)	1.2	Apr-June		9.2	13
COAL CREEK					
Coal Crk nr Cedar City	7	Apr-Sept		16.6	`42
COLORA	DO RIVER	BASIN			
GREEN RIVER TRIBUTARIES IN UTAH					
FLAMING GORGE TO DUCHESNE RIVER					
Henry's Fork at Linwood Ashley Creek nr Vernal	12 32	Apr-Sept Apr-Sept		40 59	30 54

⁽¹⁰⁾ Observed flow plus change in storage in Otter Creek Reservoir. (11) Observed flow plus change in storage in Otter Crk & Piute Reservoirs. (12) Gage is below diversions near Salina. (13) Observed flow at Rockyford Dam, corrected for change in storage in Rockyford Reservoir. (14) Observed flow plus diversion through Duchesne Tunnel. (15) Observed flow plus change in storage in Moon Lake Reservoir.



FORECAST POINT	FORECAST THIS YEAR	FORECAST PERIOD	LAST YEAR	AVERAGE b	THIS YEAR AS PERCEN OF AVERAG
н		,			3, 2,1,1,0
DUCHESNE RIVER				ţ	
Duchesne at Provo River (Trail nr Hanna) Duchesne nr Tabiona (14) Rock Crk nr Mtn. Home Strawberry at Duchesne Lakefork below Moon Lake (15) Yellowstone nr Altonah Uinta nr Neola Whiterocks nr Whiterocks	25 70 72 18 55 54 63 38	Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-Sept Apr-Sept	 55	42* 124 109 79 78 79* 101 57	60 56 67 23 70 68 62 57
PRICE RIVER					
Gooseberry Crk nr Scofield Scofield Reservoir Inflow (16) Price nr Heiner (16)	6.5 18 2 4	Apr-Sept Apr-Sept Apr-Sept		12.6 40 70	52 45 34
SAN RAFAEL RIVER					
Huntington Crk nr Huntington Cottonwood Crk nr Orangeville Ferron Crk nr Ferron	31 30 22	Apr-Sept Apr-Sept Apr-Sept		59 59 43*	53 51 51
MUDDY RIVER					
Muddy Creek nr Emery Ivie Creek abv. Div. nr Emery	10.5	Apr-Sept Apr-Sept		23.1* 1.8*	45 50
VIRGIN RIVER					
Virgin nr Virgin	19	Apr-June	18.0	44	43
UPPER COLORADO BASIN					
Colorado nr Cisco, Utah Flaming Gorge Inflow (17) Green at Green River, Utah(17) San Juan nr Bluff, Utah (18) Lake Powell Inflow (a)	2600 990 2560 515 4600	Apr-Sept Apr-July Apr-Sept Apr-Sept Apr-July	1555 645 1835 565 3679	4059 1285 3540 1226 8100	64 77 72 42 57

⁽a) Observed flow at Lee's Ferry plus change in storage in Flaming Gorge, Navajo, Lake Powell and Big Sandy.

GENERAL FOOTNOTES

⁽¹⁶⁾ Observed flow plus change in storage in Scofield Reservoir. (17) Observed flow plus change in storage in Flaming Gorge and Big Sandy Reservoirs. (18) Observed flow plus change in storage in Navajo Reservoir.

⁽a) Runoff forecasts are based principally on mountain snow cover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts. The discharge data is taken from preliminary records of the U.S. Geological Survey. (b) 1943-57, 15 year period. *Partly estimated.

7 (7)

BASIN or STREAM	RESERVOIR	USABLE	MEASURED (FIRST OF MONTH)			
		CAPACITY	THIS YEAR	LAST YEAR	AVERAGE	

GREAT	BASIN
-------	-------

Bear River	Bear Lake Woodruff Narrows	1421.0 26.5	724.0 13.8	761.4 18.5	815.6
Little Bear	Hyrum Porcupine	15.3 11.3	11.7	12.6 3.5	10.7
<u>Ogden</u>	Pineview	110.0	48.8	63.5	7.2
Weber	Rockport Echo East Canyon	60.9 73.9 28.7	25.7 38.4 19.5	33.6 37.5 19.4	28.5 16.0
Provo	Deer Creek	149.7	96.0	120.9	82.3
Spanish Fork	Strawberry	270.0	54.5	52.6	134.3
Utah Lake	Utah Lake (b)	1149.0	288.9	277.5	614.2
Sevier River	Otter Creek Piute Sevier Bridge	52.5 74.0 236.1	17.0 21.0 45.8	22.4 28.9 57.8	31.9 46.4 150.4
Beaver River	Rocky Ford	23.3	7.4	8.6	15.3
	COLORADO	RIVER DRAINAO	<u>GE</u>		
Ashley Creek	Steinaker	33.3	9.4	15.3	
Lake Fork	Moon Lake	35.8	20.3	15.9	13.9
Price River	Scofield	65.8	10.3	18.1	16.1
Green	Flaming Gorge	3789.0*	863.7	66.4	
San Juan	Navajo	1709.0*	326.7	102.6	
Colorado	Lake Powe11	27,000.0%	3,119.0	77.5	-

All data contained in this table supplied by the U. S. Geological Survey * - Total capacity reported



RIVER BASIN or TRIBUTARY WATERSHED	NO. of COURSES	THIS YEARS SNOW WATER EXPRESSED AS PERCENT OF :		
RIVER BASIN OF FRIBURANT WATERSHED	AVERAGE	LAST YEAR	AVERAGE *	

	GREAT BASI	N	
Smith's Fork - Bear River(Wyo) Strawberry-Mink Creeks(Ida) Cub River (Ida) Logan River Blacksmith Fork-Little Bear Malad River (Idaho) Ogden River Weber River above Echo Dam Chalk Creek - Coalville East Canyon Creek Farmington Creek Salt Lake Area Tooele Area American Fork River Provo River above Vivian Park Strawberry Reservoir Valley Hobble Creek Mt. Nebo Area Sevier River above Panguitch East Fork Sevier River Clear Creek above Sevier Salina Creek San Pitch River Chicken Creek - Levan Chalk Creek - Fillmore Beaver River Parowan Creek Coa! Creek - Cedar City Enterprise - New Harmony	53235248332413632254126123341	109 318 181 150 202 279 111 266 127 169 128 550 154 99 106 210 258 146 107 117 132 91 140 280 85 133 185 170	85 78 76 84 78 76 84 77 85 76 84 77 86 87 87 87 87 87 87 87 87 87 87 87 87 87
	COLORADO RIVE	R BASIN	
Duchesne River above Tabiona Strawberry River Lakefork River Whiterocks-Uintah Rivers Ashley Creek Price River San Rafael Tributaries Fremont River Escalante River Virgin River LaSal Mtns. near Moab Blue Mtns. nr Monticello	3 4 2 3 4 7 4 4 2 4 2 2	90 98 90 90 119 91 77 148 102 220 50 49	50 42 40 31 35 43 51 51 35 31 34 21



GREAT BASIN DRAINAGE

UPPER BEAR RIVER (Above Harer, Idaho)							
Big Park CCC Camp x Kelly Ranger Station Monte Cristo R. S. Piney LaBarge x Poison Meadows x Salt River Summit x Trial Lake x LOWER BEAR RIVER	10G11 10G7 10G12 11H12 10G10 10G6 10G8 10J8	8700 7500 8200 8960 8820 8500 7900 9800	2/24 2/27 2/24 2/26 2/25 2/26 2/28 2/28	49 38 46 49 44 61 45 46	14.1 9.6 13.6 14.5 13.4 19.0A 12.5 12.1	14.1 7.8 11.9 14.8 15.6 21.0A 10.4 16.0	17.2* 10.4 22.7* 17.5* 25.2* 13.6* 23.4*
(Below Harer, Idaho)							
Beaver Crk-Skunk Crk Christensen Ranch Cub River R. S. Dry Bread Pond x Dry Creek Flat Emigration Canyon Emigrant Summit Garden City Summit Klondike Narrows Little Bear (lower) Little Bear (upper) Monte Cristo R. S. Oxford Mountain Slug Creek Divide Steep Hollow #1 Steep Hollow #2 Strawberry Creek Strawberry Mink Divide Tony Grove R. S. Willow Flat	11H14 11G11 11G12 11H13 12G4 11G7 11G6 11H7 11H1 11H26 11H25 11H12 12G3 11G5 11H27 11H28 11G9 11G10 11H3 11G4	7150 5600 5400 8230 6350 6500 7700 7600 7400 6100 6850 8960 6800 7225 8500 7700 5800 6800 6250 6100	2/26 2/26 2/26 2/25 2/25 2/25 2/25 2/25	31 28 30 37 29 28 56 41 46 32 49 43 74 57 35 13 43	7.6 7.1 8.3 10.0 7.0 15.4 12.2 13.8 7.2 8.2 14.5 6.4 12.0 24.4 18.5 8.3 14.4 8.5 12.6	3.9 0.0 10.8 0.0 6.7 14.6 11.0 10.5 0.0 1.6 14.8 4.6 11.2 22.2 17.9 1.3 6.8 4.1 5.5	11.6* 9.4* 8.9* 16.7* 7.2* 17.4* 16.7* 8.0* 10.2* 22.7* 9.0* 11.4* 19.8* 11.2* 14.6
OGDEN RIVER							
Beaver Crk-Skunk Crk. Ben Lomond (1ower) Ben Lomond Peak Ben Lomond Trail Cutler Creek Dry Bread Pond Horse Ridge Monte Cristo R. S. Sagebrush Flat	11H14 11H9 11H8 11H30 11H29 11H13 11H21 11H12	7150 5850 8000 6000 6780 8230 8260 8960 6300	2/26 2/27 2/27 2/27 2/27 2/26 2/24 2/26 2/26	31 40 66 43 56 37 44 49	7.6 11.7 21.5 12.3 18.0 10.0 13.1 14.5 5.6	3.9 1.6 18.8 3.2 13.2 10.8 13.4 14.8	11.6* 12.3* 28.5* 16.7* 22.7* 5.0*

(a) 1943-57, 15 year period. (b) Average of all past record. (x) Adjacent drainage. (A) Aerial observation: Water content estimated. * Estimated 1943-57, 15 year average.



DRAINAGE BASIN and SNO	W COURSE		DATE	- Introdu		PAST RECOR	
NAME	NO.	ELEVATION	DATE C		WATER CONTENT	WATER CONTENT	(Inches)
2)					(Inches)	LAST YEAR AVE	AGE
WEBER RIVER							
Beaver Creek R.S. Chalk Creek #1 Chalk Creek #2 Chalk Creek #3 Farmington Canyon (lower) Farmington Canyon (upper) Horse Ridge Kilfore Creek Lamb's Canyon x Lost Creek Reservoir Parley's Canyon Smt. Redden Mine (lower) Redden Mine (upper) Silver Lake x Smith & Morehouse Trial Lake x	11J24 11J1 11J2 11J3 11J12 11J11 11H21 11H31 11J14 11H32 11J15 11J16 11J5 11J16 11J4 10J8	7500 9100 8000 7500 6950 8000 8260 7300 6600 6125 7500 8500 9000 8725 7600 9800	2/28 2/25 2/25 2/28 2/28 2/24 2/24 2/28 2/26 2/26 2/27 2/27 2/27	21 50 39 30 46 50 44 30 34 No Report 40 37 41 46 29 46	4.7 12.2 8.6 6.0 13.4 14.8 13.1 7.4 7.0 11.8 9.1 10.5 13.3 7.0 12.1	4.8 15.3 7.2 1.0 6.3 11.8 13.4 7.2 5.1 0.0 9.1 9.2 10.4 11.6 5.2 16.0	8.4* 20.8* 13.2* 6.9* 19.4* 22.5* 13.5* 15.7* 16.9* 17.9* 21.4* 23.4*
PROVO RIVER & UTAH LAKE	1030	9000	2/20	40	1201	10.0	23.40
Camp Altamont Clear Creek Ridge #1 Clear Creek Ridge #2 Clear Creek Ridge #3 Daniels-Strawberry Smt. Dutchman R. S. East Portal Hobble Creek Summit Packard Canyon Payson R. S. Rock Bridge Soapstone R. S. South Fork R. S. Strawberry Divide Timpanogos Cave Camp Timpanogos Divide Trial Lake	11J20 11K21 11K22 11K23 11J17 11J17 11J22 11J31 11K1 11K2 11J25 11J19 11J18 11J18 11J18 11J18	7300 9200 8000 6600 8000 7500 7560 7300 6400 8050 6750 7800 6100 8000 5500 8140 9800	2/28 2/26 2/26 2/27 2/27 2/27 2/27 2/27 2/27	28 36 32 18 28 28 21 32 27 39 36 28 19 40 16 39 46	8.4 9.3 7.7 4.1 6.2 7.2 8.5 11.2 9.5 6.6 10.4 4.1 15.4 12.1	3.4 8.8 4.2 0.6 5.6 8.8 4.6 5.2 2.6 6.4 2.7 7.9 0.4 11.2 0.0 12.2 16.0	16.3 15.2* 12.0* 7.0* 14.0 18.0* 11.0* 13.4* 10.5* 10.5* 10.7* 12.0* 7.3* 18.1* 4.0* 24.5 23.4*
JORDAN RIVER & TOOELE VAL	<u>EY</u>						
Lamb's Canyon Middle Canyon - Tooele Mill D South Fork Parley's Canyon Smt. x Silver Lake	11J14 12J3 11J10 11J15 11J16	6600 7000 7400 7500 8725	2/28 2/26 2/27 2/29 2/27	34 42 42 40 46	7.0 11.0 11.5 11.8 13.3	5.1 2.0 8.9 9.1 11.6	13.5* 11.3* 17.2* 15.7* 21.4

CURRENT INFORMATION

PAST RECORD

SNOW



					CORRENT INFORMATION			
DRAINAGE BASIN and SNOW			DATE OF	SNOW DEPTH	WATER CONTENT	WATER CONTENT		
NAME	NO.	ELEVATION	SURVEY	(Inches)	(Inches)	LAST YEAR AV	ERAGE a	
UPPER SEVIER RIVER (South of Richfield, Utah	1)							
Big Flat x Box Creek Bryce Canyon	12L7 12L4 12M8 12M13 12M1 12M4 11L3 12M5 12L6 12M6 12M2 12M7 12L5 11M1 11M2 11M3	10290 9800 8000 9700 10390 8560 8700 7700 8900 7500 9800 9300 9500 9500	2/25 2/26 2/28 2/26 2/25 2/25 2/25 2/25 2/26 2/26 2/26	25 28 7 25 24 14 14 8 34 0 33 6 14 9 16 18	5.8 5.7 1.3 6.3 5.8 3.2 2.2 1.6 7.5 0.0 8.5 0.8 3.0 2.2 3.2 4.4	8.4 4.9 0.0 4.0 5.0 0.2 T T 6.4 0.0 5.2 T 1.7 1.9 3.6 6.3	15.5* 12.0* 4.5* 12.0* 19.2* 13.5* 7.3* 9.0* 14.0* 5.9* 20.1* 4.5* 7.0*	
LOWER SEVIER RIVER (Including San Pitch Rive	<u>r)</u>							
G.B.R.C. Meadows Gooseberry R. S. Gooseberry Reservoir x Mammoth R.SCtnwood Crk. Mt. Baldy R.S. Pine Creek Rees's Flat	12L3 11K13 11L1 11K11 11K10 11L2 11K4 11K3 11K12 12L1 11K36 12L11	7200 8000 9900 8700 10000 8400 8700 8800 9500 8700 7300 6200	2/27 2/25 2/27 2/28 2/28 2/27 2/29 2/29 2/25 3/2 2/24 2/27	32 33 48 34 49 37 33 37 42 43 30 33	7.2 7.2 12.2 9.3 12.3 9.0 9.9 10.4 9.3 10.3 6.7 7.1	1.6 7.4 10.3 8.5 15.0 6.2 10.2 10.8 14.2 9.3 4.8 0.6	9.2* 10.1* 15.1* 13.6* 21.0* 9.3* 16.2* 17.1* 19.5* 13.3*	
BEAVER RIVER								
Big Flat Merchant's Valley Otter Lake	12L7 12L9 12L8	10000 8200 9300	2/25 2/25 2/25	25 10 25	5.8 1.9 5.2	8.4 1.7 6.9	1 <i>5.5</i> * 9.0* 13.2*	
PAROWAN CREEK	10410	9200	0 /01	0.0	1 0	2 1	7 7:1-	
	1 2M1 2 1 2M1 1	8300 8700	2/24 2/24	20 25	4.0 4.5	2.1 4.8	7.7* 9.8*	

CURRENT INFORMATION

PAST RECORD

SNOW



SNOW	CU	RRENT INFORM	PAST RECORD				
DRAINAGE BASIN and SNOV	_		DATE OF	SNOW DEPTH	WATER CONTENT	WATER CONTENT	
NAME	NO.	ELEVATION	SURVEY	(Inches)	(Inches)	LAST YEAR AVE	RAGE a
			1				
COAL CREEK							
Cedar Breaks	12M1	10390	2/26	24	5.8	5.0	19.2*
Midway Valley x	12M2	9800	2/26	33	8.5	5.2	20.1%
Urie Flat	12M10	8450	2/26	10	2.5	0.0	7.8%
Webster Flat	12M3	9200	2/26	26	6.1	2.2	15.6%
ENTERPRISE TO NEW HARMON	Y DRAIN	IAGES					
Little Grassy Creek	1 3M4	6100	2/27	1	0.5	0.0	
Long Flat	1 3M2	8000	2/27 2/27	8	1.7	1.0	5.7 *
	-		-/ - /				,
		COLORADO	RIVER D	RAINAGE			
UPPER GREEN RIVER IN UTA (Tributaries above Flami		(0)					
(IT Ibutaries above i falli)	ng dorg	<u>e)</u>					
Black's Fork Jct.	10J22	8925	2/18	26	5.2	4.7	
Buck Pasture A	10J23	9700	2/26	36	8.0A	7.5A	
East Fk. Black's Fk.G.S.		9300	2/18	29	6.6	5.3	
Henry's Fork A	10J24	10200	2/26	37	8.1A 5.7	5.9A	0 54
Hewinta Guard Station Hickerson Park	10J4 9J8	9500 9100	2/19 2/26	27 23	4.5	5.7 1.9	8.5%
Spirit Lake	9J7	10300	2/26	40	8.8	3.8	
Steel Creek Park	10J20	9900	2/19	44	9.4	7.5	
BRUSH CREEK							
		04	- /- -				0 = 1
King's Cabin (lower)	9J2		2/25	17	3.2 4.1	1.8	8.7*
King's Cabin (upper)	911	8730	2/25	22	4.1	3.1	9.9*
DUCHESNE RIVER							
Ashley Twin Lakes A	9J11	10500	2/26	24	5.2A	2.4A	
Atwood Basin A	10J27	10250	2/27	27	6.0A	2.5A	
Chepeta-Whiterocks Lakes	A 9J9	10300	2/27	29	6.4A	2.3A	
Daniels-Strawberry Smt.x		8000	2/27	28	6.2	5.6	14.0
East Portal x	11J7	7560	2/27	21	5.2	4.6	11.0%
Five Point Lake A	10J26 10K1	11000: 9100	2/27 2/27	45 17	10.8A 3.0	9.0A 5.9	 10.7%
Indian Canyon Julius Park	9J6	9800	2/2/	24	5. 2	5.9 5.0	
Lakefork Basin	10J25	11100	2/27	60	13.8A		
Lakefork Mountain	10J10	10500	2/29	23	5.5	4.4	10 .9 *
Lakefork Mountain #2	10J11	8900	2/29	12	2.2	4.0	7.6*
Lakefork Mountain #3	10J12	8100	2/29	8	1.6	3.2	6.4*



CURRENT

SNOW DEPTH

DATE OF

INFORMATION

WATER

PAST RECORD

WATER CONTENT (Inches)

SNOW

DRAINAGE BASIN and SNOW

COURSE



ş /							
ESCALANTE RIVER							
Widtsoe-Escalante Smt. Widtsoe-Escalante #2 Widtsoe-Escalante #3	11M1 11M2 11M3	9500 9500 9500	2/26 2/26 2/26	9 16 18	2.2 3.2 4.4	1.9 3.6 6.3	6.7 8.7*
VIRGIN RIVER							
Cedar Breaks x Duck Creek R.S. Harris Flat R.S. Long Valley Jct. Midway Valley x Webster Flat	12M1 12M4 12M5 12M6 12M2 12M3	10390 8560 7700 7500 9800 9200	2/26 2/25 2/25 2/25 2/26 2/26	24 14 8 0 33 26	5.8 3.2 1.6 0.0 8.5 6.1	5.0 0.2 T 0.0 5.2 2.2	19.2* 13.5* 9.0* 5.9* 20.1* 15.6*
SOUTHEASTERN UTAH DRAINAG	ES						
Buckboard Flat Camp Jackson LaSal Mountain LaSal Mountain (upper)	9M1 9M2 9L1 9L2	9000 8600 8800 9600	2/19 2/19 2/20 2/20	20 1 2 1 7 2 7	3.4 1.9 2.8 5.4	5.4 5.4 6.2 9.7	13.3* 12.0* 9.8* 14.0*

DATE OF

SURVEY

CURRENT INFORMATION

SNOW DEPTH

(Inches)

WATER CONTENT (Inches) PAST RECORD

WATER CONTENT (Inches)

LAST YEAR AVERAGE a

SNOW

DRAINAGE BASIN and SNOW COURSE

NO.

ELEVATION

NAME



PRECIPITATION DATA (Inches)

DRAINAGE BASIN

AND RAIN GAGE LOCATION	ELEVATION	DATE OF READING	MONTH'S PRECIPITATION	1943 — 57 AVERAGE	THIS YEAR		ENT OF
J)				a		а	
	GRE	AT BASIN	DRAINAG	E			
UPPER BEAR RIVER (Above Harer, Idaho)							
Chalk Creek #2 * Chalk Creek #3 * Monte Cristo #2 Salt River Summit Trial Lake *	8000 7500 8960 7900 9800	2/25 2/25 2/26 2/27 2/28	1.97 1.62 2.11 1.28 1.49	3.29 2.69 3.69	11.23 9.03 15.19 12.78 10.75	15.05 15.59 19.84	75 82 54
LOWER BEAR RIVER (Below Harer, Idaho)							
Dry Bread Pond Garden City Summit Klondike Narrows Little Bear (upper) Monte Cristo #2 Tony Grove R.S.(SCS) Willow Flat	8230 7600 7400 6850 8960 6250 6100	2/26 2/27 2/28 2/25 2/26 2/27 2/26	1.40 1.06 2.06 2.11 1.10 1.85	3.06 2.50 3.10 	12.23 12.47 16.45 11.00 15.19 10.47 13.25	18.56 14.90 18.55 16.42 19.48	66 84 89 67 68
OGDEN RIVER							
Ben Lomond(lower) Ben Lomond Trail Causey Dam Dry Bread Pond Horse Ridge Monte Cristo #2* Sagebrush Flat	5850 6000 5500 8230 8260 8960 6300	2/27 2/27 2/26 2/26 2/24 2/26 2/26	0.75 0.74 0.49 1.40 2.11 0.55		17.13 17.75 9.24 12.23 14.41 15.19 8.48	22.02 18.56 12.13	78 66 70
WEBER RIVER							
Chalk Creek #2 Chalk Creek #3 Farmington Guard Sta.(1) Farmington Rice (1) Horse Ridge Lost Creek Reservoir Parley's Canyon Smt. Silver Lake(Brighton)*(2) Smith & Morehouse Trial Lake *	8000 7500 7500 7000 8260 6125 7500 8725 7600 9800	2/25 2/28 2/28 2/24 2/24 2/29 2/29 2/29 2/27 2/28	1.97 1.62 1.24 1.36 1.56 1.53 1.95 1.49	3.29 3.80a 3.69a 3.81 4.39a 2.90 3.69	11.23 9.03 16.12 15.87 14.41 5.46 12.90 15.73 11.36 10.75	15.05 24.37a 22.21a 17.68 23.96a 15.10 19.84	75 66 71 73 66 75 54

CURRENT INFORMATION

FROM APPROX. IO/I TO DATE

⁽¹⁾ Data supplied by U.S.Forest Service
* Adjacent Drainage

⁽²⁾ Data supplied by U.S.WB
a All values estimated except those where symbol "a" occurs.



PRECIPITATION DATA (Inches)

DRAINAGE BASIN	ELEVATION	CURRE DATE OF	NT INFORMAT	ION 1943 — 57	FROM APP		E NT OF
AND RAIN GAGE LOCATION		READING	PRECIPITATION	AVERAGE	THIS YEAR	AVERAGE AVE	RAGE
)-				а		а	
PROVO RIVER & UTAH LAKE					٠		
Clear Creek Ridge #2 Daniels-Strawberry Smt. Dutchman R.S. East Portal Ridge Hobble Creek Smt. Payson R.S. Soapstone R.S. Strawberry ResE. Portal Timpanogos Divide Trial Lake	8000 8000 7500 7800 7300 8050 7800 7606 8200 9800	2/26 2/27 2/29 2/27 2/27 2/27 2/28 2/27 2/28 2/28	1.55 1.70 1.20 2.78 1.45 0.50 0.45 1.49	2.23 2.50 2.31 2.80 1.09 4.17a 3.69	8.50 9.67 11.68 9.74 9.66 13.22 11.54 6.04 14.74 10.75	13.13 13.60 22.35 13.48 14.81 14.55 7.74 23.04a 19.84	65 71 52 - 72 89 79 78 64 54
JORDAN RIVER & TOOELE VALL	<u>EY</u>						
Middle Canyon Mt. Dell Dam (2) Parley's Canyon Smt. Silver Lake(Brighton)(2)	7000 5500 7500 8725	2/27 2/29 2/29 2/29	2.40 0.38 1.56 1.53	2.84 1.82a 3.81 4.39a	13.54 7.98 12.90 15.73	14.63 10.97a 17.68 23.96a	93 73 73 66
SEVIER RIVER ABOVE RICHFIE	LD						
Big Flat * Box Creek Castle Valley Cedar Breaks Duck Creek R.S. Fish Lake Kimberly Mine Panguitch Lake Webster Flat * Widtsoe-Escalante #3 Widtsoe R.S.	10290 9800 9700 10390 8560 8700 8900 8200 9200 9500 7600	2/25 2/26 2/26 2/25 2/25 2/24 2/28 2/26 2/26 2/26	0.50 0.80 0.95 0.93 0.43 0.13		5.85	14.48 12.43 10.39 14.43 5.11 15.73 5.94 15.60 9.89 4.14a	45 55 64 57 76 70 52 59 53
SEVIER RIVER BELOW RICHFIE (Including San Pitch River							
Beaver Dams Farnsworth Lake G.B.R.C. Headquarters(1) G.B.R.C. Meadows (1) G.B.R.C. Oaks (1) Gooseberry R.S. (1) Gooseberry Reservoir * Mammoth R.S. #2 * Mt. Baldy Pine Creek Shingle Mill	8000 9900 8700 10000 7655 7800 8700 8600 9500 8700 6200	2/25 2/27 2/28 2/28 2/28 2/27 2/29 2/29 2/25 3/2 2/27	4.62 1.90 2.68 1.21 2.90 1.27 1.39	2.84a	6.86 13.00 9.85 12.48 6.64 8.85 9.45 10.12 8.43 13.42 8.87	11.75 15.35 14.55a 15.14a 10.13a 9.55 14.22 14,15	58 85 68 82 66 93 66 72 68

⁽¹⁾ Data supplied by U.S.Forest Service (2) Data supplied by U.S. WB

* Adjacent Drainage a All values estimated except those where symbol "a" occurs



p	R	F	C	P	IT.	AΤ	INN	DA.	ΓΔ	(Inches)
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THE OF THE OWNER OWN	T	CURRENT	INFORMATI	ON	FROM APPROX. 10/1 TO DATE			
DRAINAGE BASIN AND RAIN GAGE LOCATION	ELEVATION	DATE OF	MONTHS	1943 57 AVERAGE	THIS YEAR 19	43 — 57 PERCEN VERAGE AVER	T OF	
ارم				а		а		
BEAVER RIVER								
Beaver Canyon P.H. (2) Big Flat	7275 10290			1.78a 3.50		8.26a 14.48	74 45	
PAROWAN CREEK								
Yankee Reservoir	8700	No	Report	an onc		9.47		
COAL CREEK								
Cedar Breaks Webster Flat*	10390 9200	2/26 2/26	0.80 0.93		8.20 8.18	 15.60	 52	
ENTERPRISE TO NEW HARMONY	DRAINAGE	•						
Little Grassy Creek Long Flat	6100 8000	2/27 2/27		CR 3M	4.80 4.97	9.77 10.25	49 48	
	COLORA	DO RIVER	DRAINA	GE				
UPPER GREEN RIVER IN UTAH (Tributaries above Flaming	g Gorge)							
Black's Fork Jct. E.F. Black's Fk. G.S. Hewinta G. S. Spirit Lake	8925 9300 9500 10300	2/18 2/18 2/19 2/26		7980 CSD 6980 F688 6980 GSD	7.06 8.33 8.18 9.50			
BRUSH CREEK								
King's Cabin (upper)	8730	2/25			4.90	11.56	42	
DUCHESNE RIVER								
Daniels-Strawberry Smt.* East Portal Ridge * Indian Canyon Julius Park Lakefork Mountain Moon Lake Paradise Park Soapstone R.S.* Strawberry ResE. Portal* Trial Lake*	8000 7800 9100 9800 10500 8150 10100 7800 7606 9800	2/27 2/27 2/27 2/28 2/29 2/28 2/28 2/28 2/27 2/28	1.70 1.20 0.62 0.55 0.45 0.15 0.50 1.45 0.50	2.43 2.41 1.01a 2.60 2.80 1.09	9.67 9.74 4.30 4.87 6.65 3.15 5.65 11.54 6.04	13.60 12.93 12.26 7.72a 13.60 14.55 7.74 19.84	71 38 54 41 42 79 78 54	

⁽¹⁾ Data supplied by U.S.Forest Service (2) Data supplied by U.S.WB

* Adjacent Drainage a All values estimated except those where symbol "a" occurs



PRECIPITATION DATA (Inches)

DRAINAGE BASIN	ELEVATION	CURRE DATE OF	NT INFORMATI		FROM APPROX. IO/I TO DATE			
AND RAIN GAGE LOCATION	CECVATION	READING	PRECIPITATION	1943 — 57 AVERAGE	THIS YEAR		RAGE	
PRICE RIVER				a		а		
Clear Creek Ridge #2* Gooseberry Reservoir Indian Canyon Mammoth R.S. #2 Mud Creek White River #1	8000 8700 9100 8600 8300 8600	2/26 2/29 2/27 2/29 2/26 2/27	1.55 1.27 0.62 1.39 0.75	2.23 2.62 2.60 2.37	8.50 9.45 4.30 10.12 6.20 6.95	14.22 14.15 13.37	65 66 72 46	
SAN RAFAEL RIVER								
Buck Flat G.B.R.C. Meadows *(1) Gooseberry Reservoir * Red Pine Ridge Stuart R.S.	9400 10000 8700 9400 7950	2/29 2/26	1.20 2.68 1.27 1.80 No Report	2.53 2.84a 2.62 3.75	7.05 12.48 9.45 8.55	15.14a 14.22	54 82 66 51	
MUDDY RIVER								
Mt. Baldy R.S.%	9500	2/25			8.43			
FREMONT & ESCALANTE RIVER	S							
Black's Flat-U.M. Creek Farnsworth Lake* Fish Lake Widtsoe-Escalante #3	9250 9900 8700 9500	2/25 2/27 2/25 2/26	4.62 0.43	3.85 0.65 1.66	4.70 13.00 3.90 5.85	15.35 5.11	48 85 76 59	
VIRGIN RIVER								
Duck Creek R.S. Webster Flat	8560 9200	2/25 2/26		3.68 4.40		_	57 52	
SOUTHEASTERN UTAH DRAINAG	ES_							
Buckboard Flat Camp Jackson LaSal Mountain (upper)	9000 8600 9600	2/19 2/19 2/20	• •	 	6.33 4.85 7.25		40 38 45	

⁽¹⁾ Data supplied by U.S.Forest Service (2) Data supplied by U.S.WB

* Adjacent Drainage a All values estimated except those where symbol "a" occurs



Agencies Cooperating in Utah Snow Surveys

U.S. GOVERNMENT AGENCIES

- U.S. Department of Agriculture Soil Conservation Service Forest Service
- U.S. Department of Commerce Weather Bureau
- U.S. Department of Interior
 Bureau of Reclamation
 Geological Survey
 National Park Service

STATE AGENCIES

Utah Agricultural Experiment Station
Utah Fish and Game Department
Utah State Engineer
Bear River Commissioner
Price River Commissioner
Provo River Commissioner
Sevier River Commissioners
Spanish Fork River Commissioner
Utah Lake and Jordan River Commissioner

MUNICIPALITIES

Manti Salt Lake City

ORGANIZED PUBLIC AGENCIES

Beaver River Water Users Association
Board of Canal Presidents - Jordan River
Emery Canal and Reservoir Company
Moon Lake Water Users Association
Ogden River Water Users Association
Provo River Water Users Association
Strawberry Water Users Association
Sevier River Water Users Association

PRIVATE AGENCIES

Kaiser Steel Corporation

UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE 222 S.W. TEMPLE SALT LAKE CITY. UTAH OFFICIAŁ BUSINĘSS

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